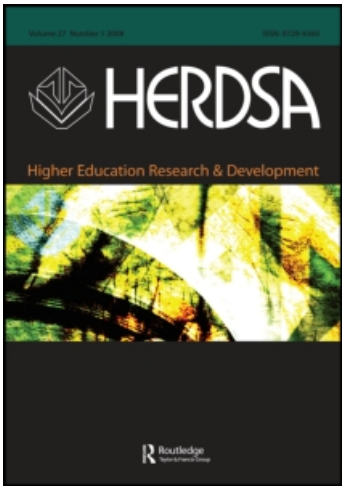

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Self-determined blended learning: a case study of blended learning design

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Self-determined blended learning: a case study of blended learning design

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Higher education has been actively encouraged to find more effective and flexible delivery models to provide all students with access to quality learning experiences yet also meet institutional imperatives for efficiency and accountability. Blended learning, commonly defined as an integration of traditional face-to-face and online approaches to instruction (Garrison & Kanuka, 2004; Graham, 2006; Macdonald, 2008), is now proposed as one solution that addresses both student learning and higher education organisational needs. Successful blended learning, however, is more than a simple integration of information and communication technologies with face-to-face approaches. This paper proposes, describes and evaluates a pedagogical approach to blended learning focused on learners and learning. First, we interrogate the literature related to blended learning to show how various constructions of blended learning may be driven by teacher-centric or learner-centric conceptions. Next, planning a learner-centric blended learning design for a core unit in a first year higher education course is described. The design is then evaluated using a mixed methodology in which the students' voices illuminate their experiences of blended learning unit design with regards to engagement, learning and self-determination.

Keywords: blended learning; course design; higher education; self-determined learning; unit planning

Introduction

Higher education has been actively encouraged to find effective and flexible delivery models to provide all students with more convenient access to quality learning experiences than is possible with traditional on-campus offerings alone. Time-poor students with commitments to family, earning, wellness, sport, technology and other interests are demanding a range of access points to learning and information. At the same time, universities are bound by community and professional standards including academic integrity, organisational efficiency, student retention and community demands for the technologically-savvy worker of the knowledge society. Blended learning has been proposed as one solution that can enhance student learning and engagement, improve access and flexibility and address organizational and institutional imperatives in higher education (Bonk, Kim, & Zeng, 2006; De George-Walker, Hafeez-Baig, Gururajan, & Danaher, 2010; Graham, 2006; Twigg, 1996). Garrison and Kanuka (2004) have also argued that adopting a blended learning approach is an effective and low-risk strategy

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towards meeting the challenge of the transformational changes that technological developments bring to higher education.

The promise of blended learning has seen interest and applications of the concept steadily increase in the higher education sector. In an international comparative survey, Collis and Van Der Wende (2002) found that it was standard for higher education institutions to utilise information and communication technologies to complement traditional face-to-face or distance learning approaches. Bonk et al. (2006) found that more than seven in ten respondents to a North American higher education survey expected to offer more than 40% of their courses in a blended format from 2013. Findings such as these suggest blended learning is more than a passing educational fad.

Balancing the blend

Although blended learning is a now familiar term and practice in the higher education sector, there has been debate about the meaning, and even usefulness, of the term (see Oliver & Trigwell, 2005). Blended learning is commonly defined as an integration of traditional face-to-face and online approaches to instruction (Garrison & Kanuka, 2004; Graham, 2006; Macdonald, 2008). However, conceptualizing blended learning as an exercise involving the add-on of ICTs to traditional learning methods or as a purposeless mixing and matching of different learning delivery modes is considered as rather a crude notion of what it is (Garrison & Kanuka, 2004; Singh & Reed, 2001; Verkroost, Meijerink, Lintsen, & Veen, 2008).

Some authors have proposed definitions of blended learning that more explicitly consider the learning outcomes of such an approach. Singh and Reed (2001) make the claim that: 'Blended learning focuses on optimizing achievement of learning objectives by applying the 'right' learning technologies to match the 'right' personal learning style to transfer the 'right' skills to the 'right' person at the 'right' time' (p. 2). However, the tenor of Singh and Reed's definition, that the teacher identifies the 'right' components, exemplifies the criticism of Oliver and Trigwell (2005) that current views of blended learning rarely position themselves from the perspective of the learner and what is actually being proposed is blended *teaching*.

To redeem the concept of blended learning, Oliver and Trigwell (2005) suggest a refocusing is necessary: from teacher to student, from content to experience and from technologies to pedagogies. Similarly, Bonk et al. (2006) emphasise that of ultimate concern in the blended learning endeavour is the pedagogy and the learning, not the actual technologies engaged. Redressing the concept of blended learning, and balancing blends for learning as opposed to teaching, brings the learner and learning to the forefront of blended learning curriculum and pedagogical design. As Garrison and Kanuka (2004) assert, 'It is not just finding the right mix of technologies or increasing access to learning. … Blended learning inherently is about rethinking and redesigning the teaching and learning relationship' (p. 99). Reconceptualising blended learning in turn requires reconceptualising the traditions of university teaching, students' attendance patterns and ways of learning (Gosper et al., 2008).

Self-determined blended learning

With a learner-centred construction of blended learning, the choices of what and when to blend will increasingly be manipulated and controlled by learners rather than teachers (Bonk et al., 2006). Masie (2006) argues that this is not new and learners have

naturally added together learning elements: 'They add what is missing, they mix it with what they need, and they subtract what is not valuable. They socialise it. They find context. And they transform training and instruction into learning' (p. 25). Thus, what is necessary to progress a learner-centred conceptualisation of blended learning in higher education is for institutions and teachers to embrace and leverage blended learning through the design, facilitation and support of blended learning experiences (Hofmann, 2006; Masie, 2006).

The expectation that students will engage and manipulate blends that fit their needs and preferences begins with blended learning unit design. A shift is needed for teachers to consider the whole curriculum and a 'weaving through', rather than 'tacking on', of blended learning approaches (Gosper et al., 2008; Hofmann, 2006). However, effective blended learning design is only part of what is required for successful learner-centred blended learning. Some learners will arrive equipped to make appropriate selections for learning whereas others will drown in a sea of possibilities – thus when offering options it is vital to assist students to make appropriate choices (Macdonald, 2008). Through effective facilitation, instructors can support students in understanding what it is they are expected to learn, the choices they have available to them when learning and can assist them to develop the necessary skills of reflection, self-direction and self-management. Therein lays the potential for blended learning to provide the flexibility, independence and responsibility, plus metacognitive processes, necessary for the development of the self-determined learner (Bonk et al., 2006; Garrison & Kanuka, 2004).

Adopting this learner-centric and self-determining view of blended learning, this paper describes the blended learning design for a first year undergraduate teacher education unit. Following this, the potential of the unit design to engage students, facilitate learning and encourage self-direction will be evaluated. Hereafter the term 'course' is used to mean a unit or subject.

Blended learning course design

Background

The first year course in human development that is the focus of this research is one taken by all students enrolled in undergraduate education degrees at a regional Australian university. Previously, the course was offered only in an on-campus face-to-face mode on two campuses and involved two hours of lectures per week and one hour of tutorial per week. The course had an online presence via the university's online learning management system (LMS), known as Study Desk by the students. However, the LMS course space was used mostly as a repository for materials provided in lectures and tutorials and as a place where course announcements were made. A university designed web-based lecture technology was used to record the audio and accompanying PowerPoint slides during on-campus lectures and these were also made available to students online. The recorded lectures were not promoted as an alternative to lectures but more as a fall back option for missed on-campus lectures. Students were provided with access to online discussion forums for the course; however the level of engagement in these forums was typically low. Student assessment was consistent with traditional face-to-face delivery and involved the hard copy submission of a written assignment and an end of semester centrally administered examination. The examination was later replaced with five tutorial quizzes.

A number of institutional changes, including the opening of a third university campus and the inclusion of the course as a core for undergraduate students in another

non-teacher education program, saw the course offerings expand to include face-to-face on-campus offerings on three campuses as well as necessitating the development of a distance offer. In the main semester of offer, the course attracted a large enrolment of around 450 students with 80% enrolled in the on-campus mode and 20% in the off-campus distance mode. The students were diverse with regards to lifestyle and learner experiences including school leavers, mature age students and international students.

In the process of conceptualising the shift from two on-campus offers to simultaneously offering the course at three campuses and by distance, the key challenge was to design and deliver an efficient and effective learning experience for a large number of students from a diversity of backgrounds. The focus was a design response that encouraged and supported the inclusion, engagement and learning of a diverse student body enrolled in one course across multiple campuses and modes of offer.

Consequently, the course was remodelled so that, irrespective of campus or mode of enrolment (on-campus or off-campus), all students were positioned as adult learners and had the opportunity to choose how they wished to engage with the course according to their own personal learning needs, preferences and situations. Thus, a blended learning design response was envisaged; one that incorporated face-to-face, online and self-directed learning experiences.

Pedagogical planning

A diagrammatic summary of the blended learning course design is shown in Figure 1. The course comprised of six equally weighted modules commencing with an introductory concepts module followed by modules for each of the major chronological lifespan stages. For each module there were focus questions and a visual concept map, which provided guidance for students about the key content of each module. Each module was allocated a two-week learning cycle, which concluded with a summative assessment task of an online module quiz. Students also completed a written assignment toward the end of the semester, which required analysis and evaluation of the content of a newspaper article that reported on themes related to human development.

A number of conceptual approaches informed the blended learning design of the course as also reflected in Figure 1. With a concern for encouraging and developing the critical thinking capacities of the students, Bloom's revised taxonomy of educational objectives (Anderson & Krathwohl, 2001) informed the design and sequencing of learning activities. Activities were designed in three broad phases (A, B and C) to deliberately engage students' lower- and higher-order thinking skills as they progressed through each module. For example, at the beginning of each module (phases A/B), the activities typically focused on remembering, understanding and basic application of course content; whereas in the latter parts of the module (phases B/C) the learning activities required students to engage in more sophisticated application as well as evaluating and creating.

The design of the blend was also informed by a contemporary model for inclusion, Universal Design for Learning (UDL), whereby learning experiences are designed to accommodate a wide variety of users via multiple means of representation, expression and engagement (see Rose & Wasson, 2008). This was operationalised using the four blended learning dimensions as noted by Verkroost et al. (2008): (1) structured versus unstructured (e.g. lecture, lecture recording or printed study book versus online forum discussion), (2) individual versus group learning (e.g. printed study book versus online forum discussion or on-campus tutorials), (3) face-to-face versus distance

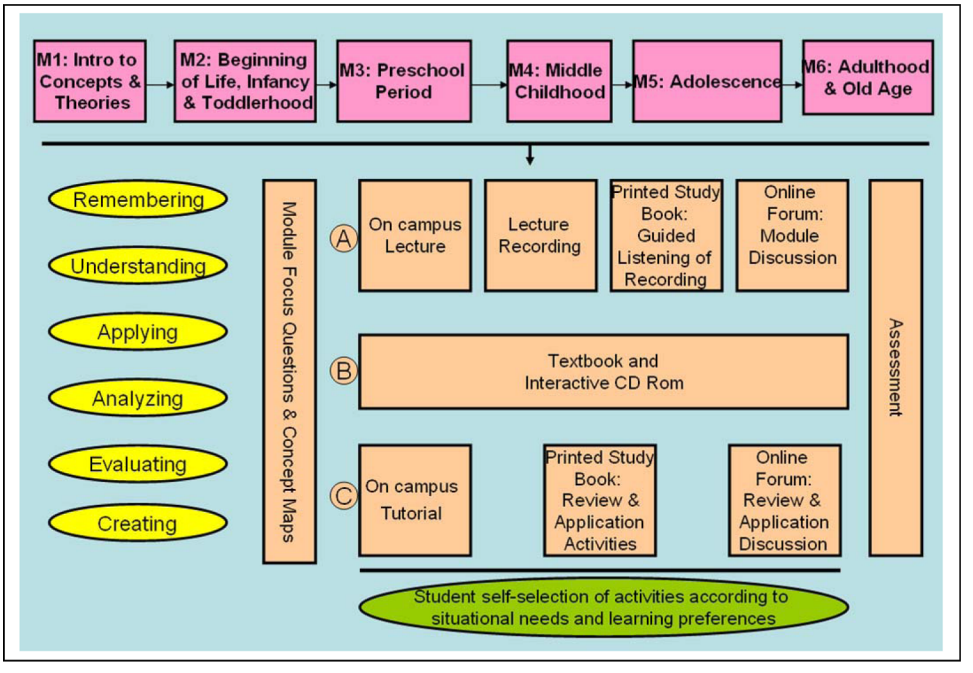

Figure 1. Blended learning course design.

learning (e.g. on-campus lecture or on-campus tutorials versus online forum discussions or printed study book) and (4) instructor-led versus student self-direction (e.g. on-campus lectures or on-campus tutorials versus the textbook, CDROM or printed study book). Thus, consistent with the principles of UDL, students were provided with multiple means of representation, expression and engagement for each phase of learning within each module.

While it was recommended to students that they select at least one learning activity from each of the three phases (A, B and C) for each module, it was made clear to students through the course guide and Study Desk postings that they were not constrained to only one activity per phase or only choosing activities that matched their enrolment mode. That is, on-campus and off-campus students were able to self-select and engage in any or all offered learning activities according to their learner needs, preferences and situation. They were able to individualise their learning and self-differentiate the curriculum and pedagogy in terms of processes, environments and technologies. In this course an on-campus student could choose to engage in activities traditionally designed for off-campus students (e.g. printed study book, recorded lectures). Similarly, an off-campus student could choose to engage in activities offered to an on-campus student if they wished to attend the campus (e.g. lectures or tutorials), while all students could choose any combination of activities. Thus, the course design response contested the distinction between on-campus and off-campus modes of enrolment and acknowledged that the contemporary on-campus student has as much need for flexibility as the off-campus student (Gosper et al., 2008; Macdonald, 2008).

The support and facilitation offered throughout the course included a single printed course guide for all students, irrespective of their mode of enrolment. As well as detail-

ing the course objectives, study schedule and assessment tasks, the course guide included a summary of the course design as presented in Figure 1, preceded by statements that encouraged students to engage with the course in the manner that best suited their needs, for example: 'Each module has been designed to be approached in the following way (but you can of course approach it in the way that best suits your learning preferences)'. Throughout the semester, frequent announcements to the course site and postings to the course online forums provided students with further encouragement to exercise choice in their learning. This was followed by individual guidance and support as needed. For example, a few on-campus students contacted course staff part way through the semester, concerned that they could not continue the course as their personal circumstances had changed, which prevented them from coming on-campus, and the time had passed to change their enrolment to off-campus mode. The blended design of the course and option of engaging as an off-campus student while still remaining enrolled as an on-campus student were outlined to these students.

Evaluation of the blended learning course design

Method

A mixed method research design was employed using face-to-face interviews and an online survey to provide breadth and depth to the evaluation and to offer both on-campus and off-campus students the opportunity to give voice to their experiences of engagement and learning in the course. Although the interviews were administered several weeks before the survey, each method was considered a primary method of data collection consistent with a triangulation mixed methods design (Gay, Mills, & Airasian, 2006). While the specific phrasing and type of questions varied to suit the face-to-face interview and survey contexts, the question content of both was designed to include identification of: (1) positive and negative aspects of the course, (2) the frequency and quality of engagement in the course generally and with the individual course learning activities and assessment, (3) features of the course that constrained engagement and learning and (4) recommendations for course features that would enhance engagement.

During a course lecture, on-campus students at one of the campuses were informed of the research and the opportunity to attend a face-to-face group interview to provide feedback about specific aspects of the course and their pattern of engagement in the course. This was followed up with an email to ensure that those students who were not at the lecture were aware of the invitation to participate. To ensure anonymity and confidentiality of the student participants, contact and interviewing was completed by a research team member who was not involved in teaching or administering the course.

Group interviews were planned, as opposed to individual interviews, given all group participants' familiarity with the course and the uncontroversial nature of the interview topic and questions (Morgan, 1997). The interviews were semi-structured with a core set of questions asked of all participants, however the interviewer was free to explore students' responses through planned and spontaneous probe questions. The questions were open-ended and divergent in nature which allowed for detailed responses and elaborations (Gay, Mills, & Airasian, 2006), for example, 'How did you access the course?' and 'What things constrained your participation or engagement?'. Interviews were scheduled for one hour and were audio recorded and later transcribed.

Although the target was six to seven students for each of four group interviews, only six students in total (five female and one male) participated in the interviews. Due to

participant schedules, only one interview was conducted in a group format with four participants; another two were conducted as individual interviews. The same semi-structured interview process was employed for both the group and the individual interviews. Six interview participants from a possible pool of 248 enrolled students represent a very low response rate of 2.4%. It is not clear why the interview response rate was so low. Several interview times were offered, including during the university-wide class-free hour; plus the interviewers were flexible and negotiated times to fit the students' schedules. The low response rate may have reflected the timing of the interviews; the final weeks of classes and just prior to the examination period is a busy time for many students. Additionally, although students were assured that participation was not in any way related to their results, and they were provided with an explanation of the strategies implemented to ensure this (e.g., contact and interviewing by non-course staff and de-identified transcripts), it is possible that this may have remained a concern for some students.

To mitigate the possible impacts on response rate of gathering data from students during the busy end of semester period and prior to results release, the online survey was administered several weeks later, after results release. Students at all three campus locations and off-campus students were invited by email to participate in the survey. The survey was developed and administered using the survey feature of the course Study Desk and consisted of forced-choice questions to gather quantitative data (e.g., 'How often did you listen to the recorded lectures') and open-ended questions (e.g., 'What things helped you to engage with and participate in the course?'). As the survey was anonymous and the interviews de-identified it is possible that some on-campus students participated in both the interviews and online survey. Thirty-five students out of a total course enrolment of 450 replied to the survey giving a response rate of 7.8%. Of the 35 students, 80% were on-campus students and 20% were off-campus students, which is proportional to the on-campus and off-campus enrolment numbers. Although the survey response rate was improved compared to the interviews, it was still very low. Again, the timing of the survey may have impacted the response rate as students may not have been checking their email after the results release period.

Results and discussion

Patterns of engagement of off-campus and on-campus students

The quantitative survey data were subjected to basic descriptive statistical analysis for the purpose of identifying and comparing the patterns of engagement of on-campus and off-campus students using the four blended learning dimensions of Verkroost et al. (2008).

Table 1 summarises the frequency of engagement in the various course learning activities for off-campus and on-campus students. The pattern of engagement was quite similar for the off-campus students who participated in the survey. All seemed to be engaging in a manner consistent with their off-campus enrolment, that is, they did not come on-campus for lectures or tutorials but instead engaged with the recorded lectures and the printed study book. Thus, according to the blended learning dimensions of Verkroost et al. (2008), they were choosing distance over face-to-face activities and self-directed over instructor-led activities.

The pattern was more mixed with regards to individual versus group learning and structured versus unstructured learning for the off-campus students. They engaged frequently with individual and structured learning materials such as the printed study book, text materials and the interactive CDROM; however, most also engaged to some

Table 1. Percentage of students engaging in course learning activities.

	Frequency of engagement					
	Off-campus (n = 7)			On-campus (n = 28)		
Course activity	Frequent	Occasional	Rare/never	Frequent	Occasional	Rare/never
On-campus lectures	0	0	100	75	11	14
On-campus tutorials	0	0	100	75	7	18
Recorded lectures	86	14	0	50	18	32
Printed study book	100	0	0	46	29	25
Online discussion forums	57	14	29	82	11	7
Text book	100	0	0	86	14	0
Interactive CDROM	71	29	0	68	14	18

degree with their peers and instructors in the asynchronous online discussions, which were unstructured and group learning. For many off-campus students, it appears that asynchronous communication technologies, where learners are 'independent of space and time – yet together' (Garrison & Kanuka, 2004, p. 99) was of benefit to their learning and engagement, perhaps assisting to meet learners' social as well as academic needs (Hughes, 2007; York, 2004). It has been documented that the success of blended learning can, in part, be attributed to the interactive capabilities of online communication technologies (Swan, 2001).

There was more variability and evidence of blending amongst the on-campus students compared to the off-campus students. The majority of on-campus students engaged with the face-to-face instructor-led activities (e.g. lectures and tutorials) but also engaged regularly with the self-directed distance resources (e.g. printed study materials and online forum discussions). It is not surprising that off-campus students are less likely to engage in a blended manner compared to their on-campus peers given that many off-campus students are located a distance from campus sites, thus precluding engagement in on-campus activities for many. Like their off-campus counterparts, the on-campus students engaged in individual and group activities as well as structured and unstructured activities.

Students' experiences of engagement and learning

The qualitative interview and survey data was subjected to a thematic analysis to capture and represent students' experiences of engagement and learning in the course. With regards to learner engagement, themes emerged around influences and choices. For learning, process and outcomes themes were evident. A third major concept emerged from the data: self-directed learning and the independence and responsibility associated with this.

Learner engagement: influences and choices

The qualitative comments from the interviews and surveys provided rich descriptions of how students chose to engage with the course to suit their individual learning and situational needs and preferences. Many off-campus students' comments

reflected how personal commitments influenced their engagement with the course, for example:

> I cannot attend lectures. I take in more if I can study at 2am when the family is asleep. I love the recorded lectures. … I would not be doing this course and improving my life if I had to attend lectures. Lectures don't suit my hectic lifestyle.

Moreover, some of the on-campus students who did not engage at all with on-campus activities and instead selected a blend of activities more similar to that of a traditional off-campus student (i.e. choosing individual over group learning and distance over face-to-face learning), revealed that personal commitments necessitated they engage in this manner too:

> I had trouble getting to the lectures at times as I have two children, so being able to do them online at night when they were asleep helped me thoroughly. I would not have done as well as I did if I didn't have Study Desk.

> In talking to other students, work and family commitments also impacted on ability to attend all on-campus requirements. Having a young family myself this did impact on my ability to attend all lectures and tutorials. If possible I would have preferred to have been able to attend all lectures and tutorials. Outside commitments certainly do have an impact.

The students' comments illustrate that on-campus students need as much flexibility as off-campus students due to family, work and other external commitments (Gosper et al., 2008; Macdonald, 2008). For some students, blended learning and the flexibility it offers with regards to the time and place of study is crucial for their entry to university studies and continued engagement and learning.

Despite being offered off-campus and online alternatives, on-campus activities such as lectures and tutorials continued to be vitally important for the engagement of several on-campus students:

> I need the contact of the lectures and tutorials to keep me engaged in the subject. It also gave me opportunities to interact with other students, and discuss the course and its content. I would find it extremely difficult to maintain my commitment and knowledge level if I didn't attend lectures and tutorials.

> Yeah, I like coming in, and coming to the lectures and tutorials, otherwise I probably wouldn't do it at home. So it sort of motivates me to keep learning. You've got other people to talk to about the subject as well, so it helps with motivation.

These comments evidence the strategic choices that students make about class attendance on the basis of educational value, convenience and flexibility, and the social opportunities to meet other students, exchange ideas and make new friendships (Gosper et al., 2008).

Some students did not necessarily need a blended learning course design to be able to engage and learn, but simply enjoyed the variety and the flexibility offered:

> I enjoyed the variety of ways the information was supplied to us – as well as lectures and tutorials there was the … text, CDROM, as well as online lectures and lecture notes.

This is consistent with findings that students tend to like blended learning, which in turn influences their engagement and learning (Khine & Lourdusamy, 2003; Oliver & Trigwell, 2005).

Taken as a whole, the students' comments about their individual patterns of engagement suggest that had the course designers prescribed patterns of participation for on-campus and off-campus students it would possibly have been to the detriment of learning, or at least resulted in dissatisfaction, for some students. Hughes and Lewis (2003) found that on-campus courses with required online components did not necessarily suit all students, which led to dissatisfaction and poor performance for some students. The students' comments also reflect the findings of De George-Walker et al. (2010) that blended learning environments and information and communication technologies can provide students with a rich learning context in which they are able to increase engagement and achieve their individual goals. There was also a sense that students felt 'at home' regardless of their location and enrolment mode and that divisions between delivery modes become invisible and seamless for many (De George-Walker et al., 2010).

Learning: processes and outcomes

Some on-campus students' comments revealed how a blended learning design supported their learning:

> The study [book] was … very helpful too as it allowed me to work ahead if I was able too.

> Having online lectures was good. If you missed something or couldn't understand it in class, one could fall back on the lectures and listen again.

For these students, blended learning enabled them to control the pace of their learning, whether that be working ahead or revising materials for understanding.

Others reported choosing to engage with more than one of the representations or formats in each phase, for example: 'I attended all lectures that were held at the university and I also watched the online lectures'. Engagement in multiple representations is consistent with the findings of Gosper et al. (2008) who reported that students often doubled up and attended lectures and listened to lecture recordings.

All of these comments show that blended learning offered these students the autonomy to learn at a pace and in the manner that suited their needs. This finding is consistent with Motteram's (2006) study of blended learning in a teacher education program in which it was found that the blended learning course structures allowed students to deal with topics in their own time and promoted good learner autonomy.

The staff facilitation and support throughout the course was recognised as crucial by some students for their learning:

> Yes – I did put a lot of effort into it, a lot of study, a lot of time, but again I think the fact that [the lecturer] was so organised – we knew where we were going with everything – helped me keep focused.

> But there's so many options out there for us to learn with this course, it's really so helpful. And [the lecturer is] really helpful as well. She gives you so many things. If she thinks you're struggling, she'll put another form up on Study Desk just to give you a help. That's really great.

> Communication with/from the lecturer … was superb. I don't think anyone could use the excuse that they didn't know what was happening during the course. I personally liked the high level of communication and this was certainly the case during this course.

Good blended learning design, skilled facilitation and ongoing support for learners is crucial to the success of blended learning (Hofmann, 2006). In this case, students' comments highlighted the importance of clear and well organised course design in addition to responsive and communicative staff.

Self-directed learning: independence and responsibility

Several students commented on how they had seized the opportunity to engage flexibly, to match their learning processes and environments to their needs and preferences and, ultimately, to become more independent in their own learning, for example:

> … cause I like going to my tutorials, but if there's a timeline I'm like, I can't really make it to that tutorial. Whether it be I'm really busy working on something else or I cannot make it to … [campus], or I have a really important thing I need to do, the fact that … I don't have to go to that tutorial … it doesn't mean I'm not going to learn. … I'll go back myself and I'll go, OK … this is what we would have gone over … that level of flexibility makes it a lot easier for the variety of learners that there are in this course.

Some students' comments reflected the realisation that, along with choice and independence, come responsibilities:

> … we as students have been given a lot of choices. If you can't attend you should be able to catch up via Study Desk; if you can't get access to Study Desk then you should make every attempt to get to lectures and tutorials. In the end the choice is there if you want to succeed.

> I feel that the responsibility of student engagement lies with every individual student and not necessarily the university. We as students have the opportunity to attend lectures, tutorials or access the Study Desk – all of these do really assist us in our quest for great results. In my opinion if a student does not get the end result they want – due to not attending lectures, tutes etc. – then they have no one to blame but themselves.

Some even commented on and expressed frustration at the lack of self-management that some students displayed, for example:

> Like, there's people there asking questions and, sure, they must learn that way instead of reading the stuff, I know; I call them the lazy learner. But, I can't commit myself to that …

Other students' comments offer some insights into the range of skill levels students bring with regards to self-direction:

> Yeah, I think a big thing for some of us is we're first year students and I think that's one of the reasons I engaged pretty late. Like, I thought the course was great but I didn't really have that deeper understanding until pretty late. And also with discussion board, I just started using it with this assignment and I'm finding it excellent. I'm going on and, just little things you don't really think about, someone else will think about.

> I would like to have put more effort into the course. … I think it was the overwhelming pressures and workloads of all the other courses and the amount of assessments associated, plus work, other personal commitments and the 'getting used to' the university lifestyle, being the first semester.

Thus, students such as these, who may be described as 'at-risk', appeared to experience some difficulty coming to terms with their transition to university. The addition of a blended learning course with its array of choices and possibilities may have added to their sense of being overwhelmed and perhaps even excluded. Rather than suggest that these students require a more prescribed blend, the experience of these students underscores the importance of ongoing and encouraging facilitation and support for inclusion and assisting students to develop skills of learning to learn and self-management (Hofmann, 2006; Hughes, 2007; Hughes & Lewis, 2003).

Conclusion

The case study design and low response rates for the survey and interviews mean it is not possible to generalise the findings to all students in the course, nor to other courses and contexts. However, the richness of the data from this case has illustrated patterns of student engagement, learning and self-determination that further support the potential of learner-centered blended learning designs in higher education. The findings of this study suggest that successful learners are aware of their learning and situational needs and preferences and are able to select learning formats to fit their changing needs. While the search for the most appropriate combination of blended learning formats continues, it is argued that a learner-centered view of blended learning requires acceptance that there will be endless successful combinations – as many as there are individual students. Furthermore, it is not the role of the teacher to prescribe the nature of the blend but to develop courses with multiple means of representation, expression and engagement and to scaffold and support students in the creation of their own individualised blend. In this way, students will engage and also develop their skills as reflective, self-directed, self-regulating and, indeed, self-determined learners.

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